



THE CITY OF MELVILLE

&

**THE
INSTITUTION OF ENGINEERS,
AUSTRALIA**

CEREMONY FOR THE UNVEILING

OF

HISTORICAL ENGINEERING MARKER

AT

WIRELESS HILL PARK, ARDROSS

ON

24 OCTOBER, 1994

THE CITY OF MELVILLE
&
THE INSTITUTION OF ENGINEERS, AUSTRALIA

HISTORICAL ENGINEERING MARKER
CEREMONY

MONDAY 24 OCTOBER 1994 AT 5.30PM

PROGRAMME

WELCOME

Chief Executive Officer, Melville City Council

SUPPORTING ADDRESSES

- Mr Charles Waterton, President of the Institution of Engineers,
Australia, WA Division
- Mr Bruce James Chairman Engineering Heritage Panel
- The Hon Richard Lewis MLA JP
Minister for Planning and Heritage

PRESENTATION AND UNVEILING
OF

HISTORICAL ENGINEERING MARKER

Professor Douglas Clyde, National President of the Institution
of Engineers, Australia

ACCEPTANCE BY

Her Worship the Mayor, June Barton JP

PERTH WIRELESS STATION 1912 - 1967

The buildings on the site remain intact and date from the commencement of the station in 1912. The three buildings at the crest of the hill were the operators' building, the engine house and the store. At the bottom of the hill near the Canning Highway are a group of four dwellings which housed the operating and maintenance staff. Also remaining on the site is the central concrete foundation for the 120m mast and the three concrete anchor blocks for the mast guy wires. The only remaining parts of the wireless equipment on display at Wireless Hill are a large antennae coil former and a broken glass insulator disc from the base of the mast.

The buildings, roads and foundation were constructed by the Architectural Division of the Public Works Department of Western Australia. The supply of plant and erection of the 120m mast was undertaken by the Australian Wireless Company. The original wireless equipment was a crystal receiver using local galena ore and a 25w quenched arc transmitter supplied from Germany by Telefunken. It was powered by a 60hp Gardiner engine driving a 50 cycle alternator.

Operations began under the control of the Postmaster General's Department. The Australian Navy took control during WW1, and installed a 60 KW Poulsen arc transmitter and valve operated receivers. Soon after 1916, power was obtained from the metropolitan supply at 20KV through a 75 KVA transformer to produce 400V. Control returned to the PMG Department in 1920, passing to AWA in 1922, who installed valve transmitters. Generating machinery was removed from the power house building in 1942, and the building became the transmitter hall. The operating staff moved to Bassendean in 1943, where they were placed in a concrete bunker, and returned to Applecross in 1946, when all the transmitting and receiving equipment still remained in the original power house building.

Control of the station moved to the Overseas Telecommunications Commission in 1947, who moved the receiving equipment to Bassendean and the transmitter operators to the old cable station at Mosman Park. Two rhombic antennae were used for the MASA Space Mission communication in 1960, and the 120m mast was replaced by a shorter mast of 46m in 1962. OTC vacated the site in 1967, and control of the site with its buildings passed to the City of Melville. The original transmitter building became the Caretaker's residence, and original power house building the Wireless Museum, and the store building a community meeting hall and the control centre for the State Emergency Service.

The Perth Station with its sister station at Pennant Hills in Sydney, was set up to

establish direct wireless telegraphy communication across Australia from 1912. These stations together with smaller coastal stations in Melbourne, Hobart and Brisbane also formed an important link in a network of coastal shipping communication wireless stations established around the Australian coastline just prior to the first World War, and commanded the seaward approach on the western side of the continent. This greatly improved the safety of ships at sea around the Australian coast. The station took on a larger international role in about 1925, both serving as a feeder for traffic to eastern states international services and for direct wireless links across the Indian Ocean. Additionally, about the same time, AWA installed a 5 KW coastal service transmitter for radiograms; equipment for police communication VK-1, and a short wave broadcasting station VK6-ME. Nicholsons Ltd, who were the local agent for AWA, began commercial broadcasting with a 'B' Class transmitter 6PR of 500W in 1931.

Perth Wireless Station commenced operation just eighteen years after Marconi first demonstrated wireless telegraphy from the Post Office in London, sending messages over a distance of about twelve miles. Therefore the Station has an important place in technological history.

The Station also has strong associations with important developments in wireless telegraphy and broadcasting in Australia and the development of Amalgamated Wireless Australia (AWA) and the Overseas Telecommunications Commission (OTC). The station was used continuously from 1912 to 1967 as the main coastal radio communications centre for the State. In the 1920's it became a feeder station for international radiograms and from 1943 it was used as an alternative station for international shortwave radio messages.

In summary, the site encompasses an era in technology, from the earliest establishment of wireless communications prior to the first World War until the introduction of world wide communications using satellites. Almost the whole of the original premises remain in a 'close to original' state. These are located on a site that has significant recreational importance as an open parkland within a well-established urban area; it incorporates a heritage trail, a public museum of telecommunications, viewing platforms and other public facilities, and is well patronised by the public.

AUSTRALIAN ENGINEERING PLAQUING PROGRAMME

This programme has been operated by the IEAust. since 1984 as a means of attracting public attention to historic engineering objects and sites and increasing awareness of the significant contribution made by engineers to the development of Australia and the welfare of its people.